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09/538,785	03/30/2000	Kenneth D. Ceola	A39.2-8766	8197

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Vidas Arrett & Steinkraus PA
6109 Blue Circle Drive
Suite 2000
Minnetonka, MN 55343-9131

EXAMINER

LOFDAHL, JORDAN M

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 8

Application Number: 09/538,785
Filing Date: March 30, 2000
Appellant(s): CEOLA, KENNETH D.

MAILED

AUG 03 2002

GROUP 3600

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/21/02.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

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(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 1-14 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

5497704 Kurschner et al.

3608494 Ziemba

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-6 rejected under 35 U.S.C. 102(b). This rejection is set forth in prior Office Action, Paper No. 5.

Claims 1-14 rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office Action, Paper No. 5.

(11) Response to Argument

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurschner et al. (5497704).

As to claim 1, Kurschner et al. discloses a device comprising a magnetic sensing device for determining muzzle exit and spin rate (col. 4, lines 4-7). The Summary of Invention and claims 1-24 explicitly discloses at least two events selected from the group consisting of muzzle exit, spin rate and number of turns. The muzzle exit, spin rate and number of turns could also be derived from the disclosed counting means. Kurschner et al. does not explicitly disclose that the fuze is armed. However, it is

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inherent that a fuze's functionality and design is to be armed. Diagram 7 discloses "turns-to-burst", which is read as the fuze being armed to burst after a predetermined amount of turns. Col. 7, lines 43-47 discloses the fuze being armed after a safe separation distance for the projectile.

As to claim 2, Kurschner discloses a device including a timer (44) and an apparatus programmed to arm the fuze only if at least two events occur in a predetermined order in a predetermined time window (col. 7, lines 48-50).

As to claim 3, disclosed is a device wherein the at least two events are muzzle exit, spin rate, and turns in a predetermined time window.

As to claim 4, Kurschner discloses a device where at least two events are muzzle exit (col. 4, lines 4-7) and predetermined number of spins (col. 7, lines 50-51).

As to claim 5, Kurschner discloses a device where at least two events are predetermined spin rates and predetermined number of spins (col. 7, lines 50-51 and claim 9).

As to claim 6, disclosed is a device wherein the at least two events are muzzle exit, a predetermined spin rate, and a predetermined number of turns.

Claim Rejections - 35 USC § 103

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. (5497704) further in view of Ziemba (3608494).

As to claim 1, Kurschner et al. discloses a device comprising a magnetic sensing device for determining muzzle exit (col. 4, lines 4-7) and the use thereof for performing various fuzing functions. Ziemba teaches a device comprising a means to determine the spin rate which in turn creates a means to arm the fuze (col. 2, lines 40-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to comprise the device of Kurschner et al. employing spin rate determination as taught by Ziemba, to arm the fuze after an expected time.

As to claim 2, Kurschner discloses a device, as modified, including a timer (44) and an apparatus programmed to arm the fuze only if at least two event occur in a predetermined order in a predetermined time window (col. 7, lines 48-50).

As to claim 3, disclosed is a device, as modified, wherein the at least two events are muzzle exit, spin rate, and turns in a predetermined time window.

As to claim 4, Kurschner discloses a device, as modified, where at least two events are muzzle exit (col. 4, lines 4-7) and predetermined number of spins (col. 7, lines 50-51).

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As to claim 5, Kurschner discloses a device, as modified, where at least two events are predetermined spin rates and predetermined number of spins (col. 7, lines 50-51 and claim 9).

As to claim 6, disclosed is a device, as modified, wherein the at least two events are muzzle exit, a predetermined spin rate, and a predetermined number of turns.

Claims 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. (5497704).

As to claim 7, the limitations of claim 2 are disclosed as described above. Kurschner discloses a device including a sensor (20) capable of determining set back where the fuze is only armed if setback occurs and the at least two events occur in a predetermined order.

As to claim 8, the limitations of claim 7 are disclosed as described above. Kurschner discloses a device comprising a fuze which is armed only if muzzle exit occurs within a predetermined time window. But not disclosed is the time window predetermined from setback. It would have been obvious to one having ordinary skill in the art at the time the invention was made to comprise the predetermined time window from setback since it has been held that discovering the optimum or workable ranges involves only routine skill in the art.

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As to claim 9, the limitations to claim 1 are disclosed as described above. Not disclosed is the fuze being armed if the spin rate is between a predetermined minimum and maximum spin rate within a predetermined time window. It would have been obvious to one having ordinary skill in the art at the time the invention was made to arm the fuze between a predetermined minimum and maximum spin rate within a predetermined time window since it has been held that discovering the optimum or workable ranges involves only routine skill in the art.

Claims 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. (5497704) and further in view of Ziemba.

As to claims 7-9, Kurschner et al. in view of Ziemba discloses all the limitations as listed above.

As to claims 10-14, the method steps of the instant claim are readily apparent during the operation of the device of Kurschner et al. and Kurschner et al. in view of Ziemba.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,



CHARLES T. JORDAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

jml
July 31, 2002

Conferees
JL, PN, CJ

VIDAS ARRETT & STEINKRAUS PA
6109 BLUE CIRCLE DRIVE
SUITE 2000
MINNETONKA, MN 55343-9131